

# Carey Elastite

## FLOORING



1943

THE PHILIP CAREY MANUFACTURING COMPANY — LOCKLAND, CINCINNATI, OHIO





Institutum Divi Thomae  
Cincinnati, Ohio



Old Quaker Distillery  
Lawrenceburg, Indiana



Rock Island Sash & Door Co.  
Davenport, Iowa



Cattaraugus County Welfare Dept.  
Machias, New York



Wakeford Hardware Company  
Chicago, Illinois

# Carey Elastite PRODUCTS

## ASPHALT TILE

Elastite Asphalt Tile has a smooth, even surface, and is furnished in black and red. This product is intended for installation on smooth sub-floors.

## INDUSTRIAL FLOORING

Elastite Industrial Flooring has a smooth surface but is not as highly finished as Elastite Asphalt Tile. This product is intended for application over sub-floors, having not more than one high (or low) spot per square foot, with a maximum difference between high and low spots of not over  $\frac{1}{8}$  in.

## GENERAL CHARACTERISTICS

Carey Elastite Asphalt Tile and Elastite Industrial Flooring are smooth, dense, tough and highly resistant to compressive loads, and at the same time provide a surface which is dustless, quiet under foot or wheel traffic and comfortable for walking or standing.

Although relatively hard, these floor surfacing materials are not rigid or unyielding. This resiliency results in a tendency for any slight markings or indentations to be ironed out under traffic.

Carey Elastite Asphalt Tile and Elastite Industrial Flooring may be readily and rapidly applied to any properly prepared sub-base, and are ready for use as soon as installation is completed. Should any part of the finished surface be subsequently damaged, it can be easily repaired by replacing only the damaged units, being then ready for service immediately.

Carey Elastite Asphalt Tile and Elastite Industrial Flooring are uniform products, manufactured by modern machine methods under exacting laboratory control and from new, clean, and carefully selected raw materials. These products contain asphalt, mineral filler and asbestos fiber for reinforcement.

## RECOMMENDED USES

Carey Elastite Asphalt Tile and Elastite Industrial Flooring are recommended for general use in factories, warehouses, schools, stores and restaurants, offices, etc., where a suitable sub-base exists and where loading, temperature and chemical conditions fall within proper and reasonable limits.

The following list shows wide spread use of Elastite Asphalt Tile and Elastite Industrial Flooring and indicates adaptability to various types of service.

### Elastite Asphalt Tile or Elastite Industrial Flooring:

Distilleries	Restaurants
Factories	Retail Stores
Laboratories	School Rooms
Offices	Shipping Docks
Packing Rooms	Storage Garages
Printing Plants	Trucking Aisles
Rathskellers	Warehouses



## OUTSTANDING FEATURES

Outstanding features, in addition to durability, recommend Carey Elastite Asphalt Tile and Elastite Industrial Flooring for the above mentioned uses.

**Comfort**—Resiliency provides a surface which is comfortable underfoot for walking or standing, and which is not noisy under traffic. The comparatively low thermal conductivity of the material provides an insulating value which, it has been determined, is equal to that of 3 inches or more of regular concrete.

**Resistance to Fire**—A flash point of approximately 700° F. indicates that the material is highly resistant to fire, and will not create a fire hazard. (Elastite Asphalt Tile is listed by the Underwriters' Laboratories.)

**Dielectric Strength**—A breakdown voltage of over 30,000 volts for the ½ in. material indicates an electrical insulating value approximately equal to that of marble and much greater than that of soapstone (or Alberene stone) and slate. The electrical resistivity averages in excess of  $6 \times 10^{12}$  ohm-inches.

**Resistance to Dampness**—Protection against dampness which may exist under the sub-base in some instances, as well as protection against rotting is provided because the material is practically non-absorbent in the presence of water.

**Vermiproof**—The material does not attract vermin or rodents and is not subject to attack by termites.

**Dustless**—The smooth surface is comparatively easy to keep clean because the material does not "powder" and create dust under traffic.

## SIZES . . . WEIGHTS . . . COLORS

**CAREY ELASTITE ASPHALT TILE** is made only in ½ in. thickness and in standard sizes 12 x 24 in. and 12 x 12 in. All shipments are packed securely in corrugated cartons of approximately 100 lbs. gross weight, containing 24 sq. ft.

Standard black and standard red are available making it possible to obtain a decorative effect, by combining red and black units in various patterns,

without sacrificing any of the properties required for severe service.

**CAREY ELASTITE INDUSTRIAL FLOORING** is made only in ½ in. thickness and in standard sizes 12 x 24 in., and 12 x 12 in. All shipments are packed securely in corrugated cartons of approximately 100 lbs. gross weight containing 24 sq. ft. Available only in standard black.

**NOTE:** The following instructions referring specifically to Carey Elastite Asphalt Tile are also applicable to Carey Industrial Flooring.

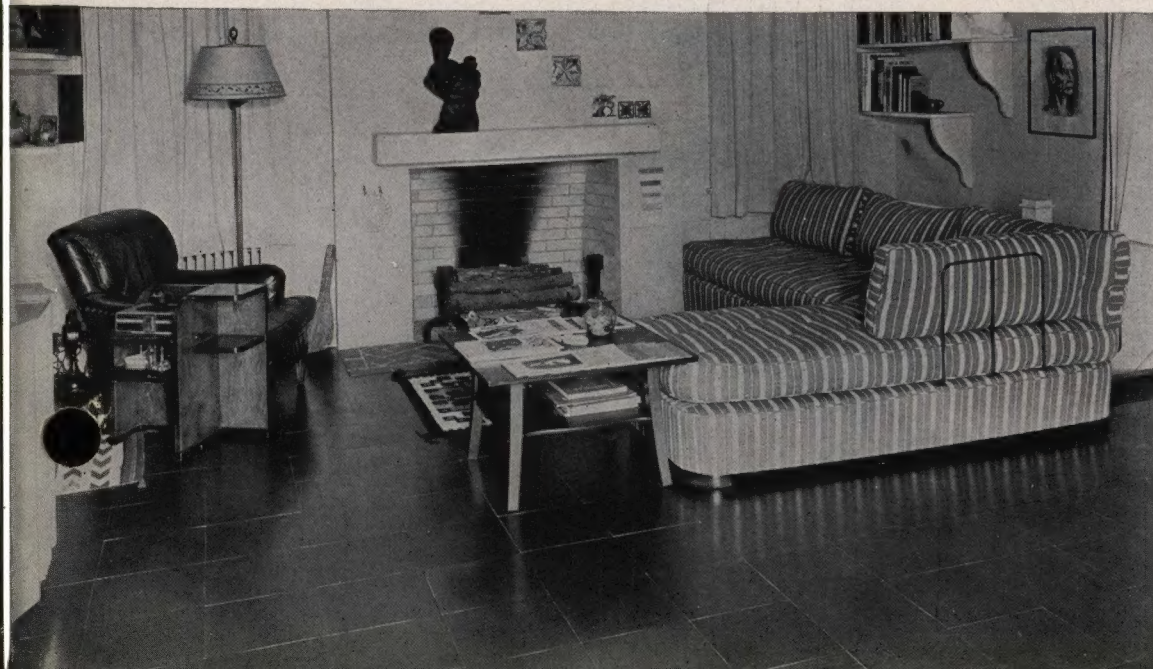
## LOADING

Elastite Asphalt Tile has the ability to carry live or moving loads of great intensity when supported by, and properly secured to, a suitable sub-base.

When subjected to heavy stationary loads for a considerable period of time the material will show some degree of marking or indentation in the surface. These indentations are ordinarily so slight as to be negligible, and if exposed to the action of moving traf-

fic usually disappear. For a given loading, the depth of indentation will be somewhat greater at high temperatures. Ordinary foot traffic has no indenting effect on Carey Elastite Asphalt Tile.

There are occasional locations where floors are exposed to abnormally high temperatures, and any general recommendations, of course, cannot apply to such cases. Any instance involving temperatures



Elastite Asphalt Tile installed  
in Studio, Richmond, Va.



in excess of 115° F. should be considered special, and as such, must be referred to our General Office.

Definite recommendations as to maximum loading are difficult to make since temperature, chemical conditions, sub-base construction and bearing areas, which are controlling factors, will vary widely on almost every installation. The following maximum loadings are given as an average only and are subject to change (raising or lowering) for any specific job.

Moving loads, Maximum Temperature 90° F., Bearing Areas 1 sq. in. or more, Maximum Load 500 lbs. per sq. in. Stationary loads, Maximum Temperature 90° F., Bearing Areas 1 sq. in. or more, Maximum Load 100 lbs. per sq. in.

In all doubtful cases it is advisable to consult our General Office or to make a test duplicating actual service conditions. When installing experimental sections of Carey Elastite Asphalt Tile the material should be secured in the same manner and to the same sub-base as would be the case for an actual service installation.



Elastite Asphalt Tile installed in Press-Room for Hennegan Co., Cincinnati, Ohio

## CHEMICAL CONDITIONS

Due to the diversity of chemical conditions encountered in various industries, and the extent to which many types of chemical action are affected by temperature and by physical conditions, it is to be expected that general rules will have only a limited value. It should be noted, however, that Carey Elastite Asphalt Tile usually should not be laid where it will be directly exposed to

- (a) Any liquids at a temperature above 150° F.
- (b) Warm or hot oxidizing solutions
- (c) Organic Solvents

While not absolutely acid or alkali proof, it is nevertheless highly resistant to most acid and alkali conditions found in industrial plants; occasional oil drip or splash will not injure the material, provided the oil is not pressed into it by traffic. Oils, fats, greases or waxes, alkalies (except sodium carbonate or sodium bicarbonate), concentrated acids, and weak sulphuric or nitric acid solutions, when present in considerable quantities or allowed to remain in contact with the surface for even a moderate

period of time constitute a decidedly unfavorable condition, and one which is accentuated by elevated temperatures. When any such conditions are involved, our General Office should be furnished with complete and specific details as to the nature and temperature of solutions, amount of spillage or drip, character of traffic, type of service, sub-base construction and other pertinent facts. Receipt of this information will enable the issuance of definite recommendations.

Carey Elastite Asphalt Tile can be applied in locations where it will come in contact with the following, provided that it is thoroughly washed with clear cool water at least once **every day** to prevent accumulation of crystals or increase in concentration:

- (a) Cold and weak hydrochloric or sulphuric acid solutions
- (b) Hypochlorite solutions
- (c) Alcoholic solutions
- (d) Solutions of organic acids such as: acetic, citric, tartaric, etc.

## WATERPROOF FLOOR CONSTRUCTION

Carey Elastite Asphalt Tile is so very dense that water absorption is practically negligible. Individual sections of the flooring are, therefore, waterproof, but a dependable waterproof installation requires a suitable membrane underneath the Carey Elastite As-

phalt Tile. The minimum requirement for a waterproofing membrane should be two layers of Carey 15-lb. Feltex (asphalt saturated felt) properly laid in asphalt cement or hot asphalt, with the top surface left dry for application of Carey Elastite Cement.

## TYPES OF SUB-BASE

Carey Elastite Asphalt Tile can be successfully applied over any type of base which offers substantial and continuous support, including wood, concrete, steel, mastic, etc.

If the base or sub-floor is rough or irregular, proper methods must be used to produce a reasonably smooth and plane supporting surface. (Refer to "Preparation of Sub-Floors" and "Treatment of Old Floors.")

## TYPE OF CEMENT

Carey Elastite Asphalt Tile must not be nailed to the sub-base but should be cemented to it, usually with Carey Elastite Cement. If, however, the installation is made over a slightly damp surface or in a

closed room where food is stored or over an asphalt mastic fill, Carey Bonding Emulsion (soap type) should be used as a cementing medium.



## PREPARATION OF SUB-FLOORS

It must be kept in mind when preparing sub-floors, that Carey Elastite Asphalt Tile is not a rigid material, and that eventually when in use, it will tend to shape itself to the contours of the supporting surface. Any irregularities in the sub-floor will, after a period of time, be reproduced to some extent in the finished surface. The appearance and durability of any installation are dependent upon a proper base.

**WOOD**—Wood sub-floors should be composed of sound, clean lumber, uniform in thickness, laid tight and close, free of appreciable deflection under loads, and well secured to the supporting structure.

When Carey Elastite Asphalt Tile is applied over an existing wood floor, all unsound or badly worn planks are to be replaced with suitable material, and all surface irregularities varying from true grade 1/16 in. or more shall be corrected by replacing planks, adzing or planing off high areas, or leveling with underlayment. All spaces between adjacent sub-floor planks greater than 1/8 in. should be filled by using wood strips nailed in place. After the base has been prepared and thoroughly cleaned, the entire area should be covered with a layer of Carey 30-lb. Feltex with the seams butt-jointed. The Feltex should be cemented down with Carey Elastite Cement directly to the wood floor, leaving the top surface dry for proper application of Carey Elastite Cement.

**CONCRETE**—In applying Carey Elastite Asphalt Tile over a new concrete floor having a floated or troweled finish, no special treatment is required, assuming of

course that the finish is reasonably smooth and level. When a new concrete base is constructed for a Carey Elastite Asphalt Tile wearing surface, it is recommended that the concrete be accurately screeded and then finished with a wood float 1/2 in. below the finished floor grade. This will bring the surface of the Elastite Asphalt Tile to the correct finished elevation.

When Carey Elastite Asphalt Tile is laid over an old concrete base which is worn, spalled or broken, the surface should be brought to correct grade and contour by trimming elevated portions and removing all loose or weak pieces or areas, with subsequent application of a leveling course of mastic (refer to "Treatment of Old Floors"), or new concrete. All cracks and joints should be filled.

When very old or badly worn concrete floors are to be resurfaced with Carey Elastite Asphalt Tile often the most economical procedure is to remove the upper 1 1/2 or 2 in. and replace with new concrete.

**STEEL**—Steel sub-floors must have a plane surface and should be prepared by removing all rust, scale and other foreign materials. Any projecting rivet heads or other obstructions should be removed.

**BRICK, STONE, OR CERAMIC TILE**—Brick, stone, or ceramic tile sub-floors should be sound with all blocks firmly seated and tight, so that no movement will occur under traffic. Any spalled portions or loose jointing material should be removed. A leveling course of mastic should then be applied. (Refer to "Treatment of Old Floors.")

## PREPARATION OF MATERIALS

**GENERAL**—Before placing floor cement or Carey Elastite Asphalt Tile be sure that the prepared sub-floor is thoroughly cleaned. All dust, dirt, oil, chemicals, and foreign substances must be removed. If the installation is made on a concrete or other type of sub-floor which "dusts" very readily, a coat of Carey Ebontex Asphalt Primer should be applied over the entire area (at a rate of approximately 1 1/2 gallons per 100 square feet) and allowed to dry overnight. This will insure a firmer bond between the floor cement and the sub-floor.

**TEMPERATURE OF MATERIALS**—Carey Elastite Asphalt Tile should never be laid when the temperature of the material is below 75° F. In cold weather, if Carey Elastite Asphalt Tile has been exposed to lower temperature, it should be stored for several hours in a room where the temperature remains at 75° F. or more.

At higher temperatures the material is relatively flexible and will more readily adapt itself to the sub-base, assuring better bearing and adhesion.

The Elastite Cement or Emulsion (see "Type of Cement") should, if necessary, be stored in a heated room or heated slowly until the temperature is at least 75° F. (Be sure that the cement is not heated above 100° F. or directly exposed to open flames.) It is difficult to spread the cements when cool and also probable that too much cement would be used.

Mix Elastite Cement or Emulsion thoroughly, in the container, before using.

Each section of Carey Elastite Tile is marked with the Carey Logotype (*Carey*) on the bottom surface. When applying, place this marked surface down.

## EQUIPMENT REQUIRED

- (a) Cutting equipment (See "Cutting")
- (b) Flooring chisels for cutting notches, curves and reentrant cuts
- (c) Hammer
- (d) Tile Setter's Trowel, either serrated or straight edged
- (e) Steel tape
- (f) Chalk line and chalk
- (g) Lawn or floor roller
- (h) Sand bags, or something similar, for weights.

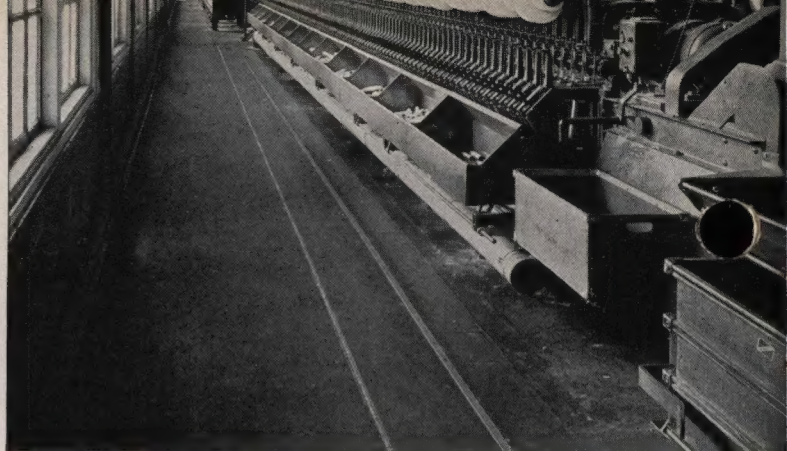


Elastite Asphalt Tile installed in Baldwin Township School near Pittsburgh, Pa.





Elastite Asphalt Tile floor applied in a laboratory at Standard Brands, Cincinnati, Ohio



Traffic aisle in Maverick Mills, E. Boston, Mass., surfaced with Elastite Asphalt Tile

**CUTTING**—Following are suggested methods of cutting Carey Elastite Asphalt Tile when an installation requires other than standard size pieces for fitting against posts, walls, etc.

The best results for straight line cutting are obtained by using a special shear type cutter developed for use with Carey Elastite Asphalt Tile. This cutter has an adjustable stop which can be set at various distances from, and angles to, the blades enabling accurate control of cuts.

Further information regarding same is available through the Lockland Office.

Satisfactory results have been obtained by using a large size asbestos shingle cutter.

When very little cutting is involved on an installation it is sometimes practical to use a coarse set hand saw with a small amount of cold water as a lubricant. Another method is to make a saw cut into the edges of the piece at each end of the cutting line, completing the operation by using an ordinary heavy wood chisel worked back and forth across the cutting line, using light hammer blows.

Reentrant cuts can be made with a hand saw or wood chisel.

## INSTRUCTIONS FOR GENERAL APPLICATION

The sub-floor must be smooth and sound and must be clean and dry. (See "Preparation of Sub-Floors.")

Use a serrated or straight edged trowel to spread the Elastite Cement (or Asphalt Emulsion when required) at a rate of approximately 1½ gallons per 100 sq. ft. When Elastite Cement is used the Elastite Asphalt Tile should be placed immediately—not more than 10 minutes after the Cement is spread. Asphalt Emulsion should be applied in advance of the placing of the Carey Elastite Asphalt Tile in a manner which will insure a drying period of from 15 to 20 minutes.

When Elastite Cement is used each piece of flooring should be pushed into place in such a manner that the Elastite Cement completely fills all joints. Any excess cement squeezed from the joints can be scraped off with a trowel or similar tool the day following application.

When Asphalt Emulsion is used, just before placing each unit, spread a thin layer of the Emulsion on the bottom surface (side showing Carey Logotype) and on edges which will abut against units already in place. With this type of adhesive the individual pieces should be placed as closely as possible to their final position without sliding. Care should be taken to avoid an excess amount of Asphalt Emulsion which would tend to squeeze out onto the surface.

Carey Elastite Asphalt Tile should be laid in straight lines, breaking the joints in alternate rows, unless some definite decorative pattern must be followed. When the Elastite Cement or Asphalt Emulsion has been applied as directed above, the

individual pieces should be placed as closely as possible to their final position and pressed firmly downward and against adjacent pieces or walls. A heavy lawn or floor roller should then be used on a completed area to insure proper adhesion. Best results will be obtained by first squaring up one corner of the area to be laid and then placing a row of units along each wall adjacent to the squared corner, trimming the units to fit the walls if necessary. This method will insure a firm support so that individual pieces can be pushed tightly together without displacing materials already in position. When a definite unit pattern is to be laid the area should first be measured carefully so that the border width may be determined. This will insure a symmetrical border when the area is laid in accordance with instructions in the preceding paragraph.

Carey Elastite Asphalt Tile should never be laid without horizontal support throughout the entire area and at all edges. If no walls or curbs occur along any edge, or if the Elastite Asphalt Tile is not recessed into the sub-base, a batten strip of steel, hard wood or other suitable material should be placed against the Carey Elastite Asphalt Tile and fastened firmly to the sub-base. This will prevent slippage of the individual units under traffic with consequent widening of the joints. The batten strips or other types of support should be wedge shaped to form a ramp which will allow easy access for trucks onto the surfaced area.

When necessary to apply Carey Elastite Asphalt



Tile on a sub-base having slight irregularities, the use of sand bags or other similar weights for an overnight period should insure complete conformity with the sub-base, and proper adhesion. This should not be attempted, however, unless the temperature of the units is at least 75° F. Unsupported corners or portions of units should never be subjected to sudden shock by hammer blows or other sudden impacts.

**FINISHING**—No further treatment of the surface of Carey Elastite Asphalt Tile may be necessary if care has been exercised during cementing and application of the material. If any cement appears on the surface it can be removed with a cloth slightly dampened with gasoline or naphtha making sure that no excess fluid is allowed to stand on the surface or in the joints. A putty knife may be helpful in removing heavier deposits of excess cement. Be sure to take proper precautions against fire hazard when using gasoline or naphtha.

The color of Carey Elastite Asphalt Tile is uniform throughout, having no painted surface to require re-fining.

The surface of Carey Elastite Asphalt Tile can be waxed if desired, to produce a glossy finish. For this

purpose use any of the standard commercial brands of emulsion wax. (i.e., Waxes which are applied in water suspension form and which dry and harden to a glossy finish without additional rubbing). Never use paste waxes or cut-back waxes on the surface of Carey Elastite Asphalt Tile.

**CLEANING**—Use clear water at a temperature of not over 100° F. to effectively clean Carey Elastite Asphalt Tile. Under extremely dirty conditions use a very mild soap solution making certain that all of the soap is immediately removed by rinsing with clear water or water acidified with vinegar. Never use strong soap solutions or any proprietary cleaning preparations, or water at a temperature over 100° F. Be careful not to use an excess amount of water when cleaning areas which have not been laid in accordance with recommendations for waterproof construction. In such cases water would not damage the surface but might possibly seep through to the sub-base with consequent damage thereto.

If the surface of Carey Elastite Asphalt Tile is waxed regularly as noted under "Finishing" it can be wiped clean with a dry mop or floor brush. Never use oily or waxy sweeping compounds or mopping preparations.

## TREATMENT OF OLD FLOORS

### (By Use of Underlayment)

The satisfactory leveling of old worn floors to provide a suitable base for Carey Elastite Asphalt Tile can be accomplished by applying an underlayment.

Asphalt Mastic underlayment is a more generally used type of filler, especially for larger areas.

**ASPHALT MASTIC FILLER**—Asphalt Mastic filler, for different types of service should be made up as shown in the following table. (Figures show parts per unit volume.)

Type of Service	Portland Cement	Clay Type Emulsion	Coarse Sand	Fine Gravel
Heavy Duty Floors.....	1	2	1	4
General Flooring Work.....	1	2	2	3
Light Duty and Feather Edging	1	2	3	0
Small Patches and Cracks....	1	1½	3	0

Mix cement, sand and gravel if used, together. Then add the proper amount of Carey Clay Type Flooring Emulsion. It might be necessary to add up to one part of clean water to obtain proper working consistency.

Proportions should be carefully adhered to since insufficient asphalt will lead to almost certain failure of the underlayment, and an excess of asphalt is apt to make a "mushy" mixture.

Never mix or place asphalt mastic when surrounding air temperature or temperature of materials is below 40° F. Finished mastic fills must be protected from freezing weather until dry.

### APPLICATION

**Preparation**—The area to be leveled must be thoroughly cleaned to eliminate any oil, dirt or other foreign material, and must be dry.

Wood floors should be covered with a layer of 15-lb. Feltex lapped about 3 in. at all joints and cemented to the wood floor with Bonding Emulsion. For heavy duty service a light wire mesh reinforcing (chicken coop wire or similar type) should be nailed over the Feltex.

**Priming**—After the sub-floor has been prepared and cleaned, or the felt cemented in place on wood floors, a priming coat of Carey Ebontex Emulsion, diluted with not over 20% clean water, should be spread over the surface at a rate of approximately 1½ gal. of undiluted emulsion to each 100 sq. ft. Allow the primer to dry, protected from dust and dirt, before applying the mastic fill.

**Application**—The fresh mastic should be spread to a rough level and then struck off with a screed to proper grade and smoothness. Finishing should be done with a wood float and steel trowel.

When fills exceeding ½ in. in depth are to be made the mastic should be applied in courses not exceeding ½ in. thick, allowing each layer to dry thoroughly. All courses except the final one should have a rough finish to provide a bond between successive layers.

For best results, drying should be retarded by means of wet cloths or light sprinkling. The mastic, however, must be thoroughly set and dry before placing Carey Elastite Asphalt Tile. At least 24 hours drying time should be allowed.

(Note: Use Asphalt Bonding Emulsion (Soap Type) for cementing Elastite Asphalt Tile to Mastic Filler.)



# BRANCH OFFICES

ATLANTA, GA.	666 Greenwood Avenue, N. E.
BALTIMORE, MD.	1400 Moreland Avenue
BOSTON, MASS.	267 Medford Street, Charlestown Dist.
BUFFALO, N. Y.	155 Erie Street
CHARLOTTE, N. C.	1429 Bryant Street
CHICAGO, ILL.	4512-18 W. Fillmore Street
CINCINNATI, OHIO	408 Commercial Square
CLEVELAND, OHIO	5906-5916 Euclid Avenue
COLUMBUS, OHIO	464 N. Park Street
DALLAS, TEX.	2220-2222 South Harvard Street
DAYTON, OHIO	Weakley Street at B. & O. RR.
DENVER, COLO.	3343 Walnut Street
DETROIT, MICH.	6197 Hamilton Avenue
INDIANAPOLIS, IND.	1111 E. 19th Street
KANSAS CITY, MO.	2028-2030 Grand Avenue
LOS ANGELES, CAL.	350 S. Anderson Street
LOUISVILLE, KY.	1032-1044 South Eighth Street
MINNEAPOLIS, MINN.	1000 Washington Avenue, South
NEW YORK, N. Y.	Lincoln Building, 60 E. 42nd Street
PHILADELPHIA, PA.	24th and Sedgley Avenue
PITTSBURGH, PA.	Corliss Station
RICHMOND, VA.	1805 High Point Avenue
ST. LOUIS, MO.	4165 Duncan Avenue
SEATTLE, WASH.	820 Fairview Place
WHEELING, W. VA.	Chapline at 18th Street

## OTHER



Heat Insulation for Piping,  
Boilers, etc.

Careyduct

Rocktex Rock Wool

Built-Up Roofings

Waterproofing Materials

Corrugated Asbestos Cement  
Roofings and Sidings

Roof Coatings and Cements

Flat Asbestos Sheathings and  
Wallboard

Asbestos Shingles and Siding

Asphalt Roofings—Shingles

Insulated Sheathing

Elastite Asphalt Plank

Elastite Expansion Joint

# THE PHILIP CAREY MFG. COMPANY

General Offices

LOCKLAND, CINCINNATI, OHIO



Digitized by:



**ASSOCIATION  
FOR  
PRESERVATION  
TECHNOLOGY,  
INTERNATIONAL**

[www.apti.org](http://www.apti.org)

**BUILDING  
TECHNOLOGY  
HERITAGE  
LIBRARY**

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:

**NATIONAL  
BUILDING  
ARTS  
CENTER**

<http://web.nationalbuildingarts.org>